



# Kansas Environmental News

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July 2001

## Environmental Conference

**Register today** for the annual environmental conference to be held September 19-20, 2001 in Hutchinson, Kansas! You should have received your agenda which includes registration information earlier this month, or you can check the web at [www.kdhe.state.ks.us](http://www.kdhe.state.ks.us) and click on Environmental Conference. This year's conference includes a variety of presentations and speakers, with a special evening event planned for Wednesday night - an opportunity to visit the Kansas Cosmosphere museum, attend a movie and network with others attending the conference at the dessert bar in the Cosmosphere's banquet room.

The Registration fee for this year's conference is **\$110.00** if paid by September 13. **We encourage you to register by September 13.** Your registration fee covers admission to all sessions, two lunches, breaks, continental and buffet breakfasts, reception at the hotel, dessert buffet and evening at the Cosmosphere. We discourage late registration fees this year as we must provide counts to the hotel and Cosmosphere for attendance, therefore, if you register after September 13, the cost will be \$130 and will not guarantee meals or the evening event at the Cosmosphere. **So, remember to register by 5:00 on Thursday, September 13 for the conference which begins Wednesday, September 19!**

**Professional Development Hours** will be provided for professional engineers and professional geologists who attend the entire conference. Please make a note of your interest in receiving professional development hours on your registration form and you will need to sign in and out each day of the conference. Certificates will be available at the end of the conference and will indicate your attendance for 10 hours of PDH.

Pollution Prevention Awards will be presented at the luncheon on September 19 by KDHE Secretary Clyde Graeber. We received several P2 award applications and the winners will be announced just prior to the conference.

We're looking forward to another successful conference and hope to see you September 19 in Hutchinson!

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## **KDHE and US EPA Region VII Sign Agreement to Provide Further Assurances to Responsible Parties Addressing Contaminated Sites in Kansas**

The Kansas Department of Health and Environment (KDHE) and Region VII of the United States Environmental Protection Agency (USEPA) have recently entered into an agreement acknowledging the adequacy of KDHE's Voluntary Cleanup and Property Redevelopment Program (VCPRP) and State Cooperative Program (SCP) for the investigation and cleanup of contaminated sites in the State of Kansas. The agreement is significant for developers, property owners, realtors and bankers. It provides further written assurances that the investigation, cleanup and redevelopment of non-Superfund contaminated sites in Kansas conducted through KDHE oversight meets the requirements established by USEPA. Various parties involved in redevelopment are sometimes reluctant to invest funds on impacted or remediated sites because of concerns regarding potential liability under a federal law, known as the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Additionally, overlapping federal/state cleanup authorities act as a costly disincentive for cleanup and redevelopment of these sites. The agreement addresses these potential concerns by clarifying the responsibilities of the respective agencies and providing assurance that USEPA does not anticipate taking any further action once a site is properly addressed under KDHE's oversight.

The Voluntary Cleanup and Property Redevelopment Program was implemented in 1997 as an initiative by Governor Graves and is designed for low to moderate priority contaminated sites. There are currently 190 sites participating in the program. The State Cooperative Program was established in 1991, and is designed for higher priority sites that pose a more significant risk to the public. There are currently over 200 sites participating in this program.

This agreement represents the sixteenth such agreement in the nation. The USEPA has signed the other agreements with cleanup programs in other states. However, the Kansas agreement is the first signed between USEPA and a state agency that recognizes both the Voluntary Cleanup Programs and an Enforcement-based Cooperative Program which addresses high priority sites.

The agreement provides written assurance to those parties within one of the above mentioned KDHE-programs that USEPA accepts the actions taken by those parties in addressing their contaminated sites under KDHE's purview. Specifically, USEPA will not take action at a site being addressed by KDHE under the VCPRP or SCP unless:

- 1) the site, following the required actions, still presents an imminent and substantial endangerment to public health, welfare, or the environment;
- 2) emergency actions are required;
- 3) the responsible party does not comply with the approved actions in a timely manner; and 4) remedial actions are not maintained by the responsible party.

The agreement recognizes KDHE's "No Further Action" letters issued in the VCPRP and the reclassification process utilized in the SCP as final end-points to actions taken at contaminated sites in Kansas. All properties participating in the VCPRP and 151 of the over 200 sites currently in the SCP are covered by the agreement. Contaminated sites or properties addressed outside KDHE's purview will not receive the benefits of the agreement.

*Rick Bean, Chief, Remedial Section*

**KDHE REGULATIONS IN PROCESS**

Update 6/28/01

REGULATION	DIV. DRAFT	EPA REVIEW	DOA REVIEW	AG REVIEW	PUBLIC HEARING	EFFECTIVE
<b><u>Solid Waste</u></b>						
Groundwater(A)	*8/01	*9/01	*9/01	*10/01	*12/01	*2/01
Vertical Expansions	*8/01	*9/01	*9/01	*10/01	*12/01	*2/01
Permit Fees	*8/01	*9/01	*9/01	*10/01	*12/01	*2/01
Medical Waste	*10/01	*11/01	*11/01	*12/01	*2/01	*4/01
SW Planning	*12/01	N/A	*1/01	*12/01	*4/01	*6/01
Const/Demo	*7/01	N/A	*8/01	*9/01	*11/01	*1/01
<b><u>Hazardous Waste</u></b>						
Update (A)	1/01	1/01	*7/01	*8/01	*10/01	*12/01
<b><u>Air and Radiation:</u></b>						
50%Permit-by-Rule(A)	*4/01			*5/01*5/01	*8/01	*9/01
AcidRainPermits(A)	11/00			*7/01*8/01	*10/01	*11/01
Acid Rain NOx(N)	11/00			*7/01*8/01	*10/01	*11/01
Opacity Rule(A)	*5/01			*7/01*8/01	*10/01	*11/01
UpdateStds(NSPS,MA)	11/00			*7/01*8/01	*10/01	*11/01
MSWLF EG Rules	*4/01			*7/01*8/01	*10/01	*11/01
Low-RVP Rule KC area(A)	10/00		12/13/003/14/01		3/14/01	4/27/01
Solvent Metal Cleaning(A)	3/01		6/01*7/01		*9/01	*8/01
<b><u>Water</u></b>						*10/01
Surface Water Qual.Stds(A)	5/01	*1/02	5/7/01	5/7/01	7/24/01	*2/02
Operator Certification(A)	10/00	N/A	3/2/01	3/2/01	5/24, 5/29	*8/01
*Projected						
New(N), Amended(A), Revoked(R)						

The Region VII College and University Forum: A Regulatory and Compliance Overview has been scheduled for August 14,15,16<sup>th</sup> at the Fairmont Hotel in Kansas City, Missouri. This forum includes a variety of topics including regulations which potentially impact colleges and universities, the EPA Audit Policy, Environmental Management Systems, Pollution Prevention and Energy Efficiency. There will also be an opportunity to meet with state officials regarding compliance issues and assistance. There is no fee for the conference but registration is required prior to August 1. For more information or to register, visit the web site at [www.epa.gov/region7/collegeanduniversity](http://www.epa.gov/region7/collegeanduniversity) or contact Lisa Hougen at [haugen.lisa@epa.gov](mailto:haugen.lisa@epa.gov) or call 913-551-7877.

## Wolf Creek Env. Radiation Report

The Kansas Department of Health and Environment's ERS (Environmental Radiation Surveillance) Program provides information about the environmental quality of the area surrounding WCNGS (Wolf Creek Nuclear Generating Station) in Coffey county. This information is obtained through Quality Control/Quality Assurance monitoring of Wolf Creek's own environmental monitoring program and samples collected and analyzed by state technicians and laboratory personnel. The purpose of the ERS program, instituted in 1985, is to detect, identify, and measure any radioactive material released to the environment from the operation of WCNGS. If elevated levels of radioactivity are detected, this information will then be used to decide whether corrective or protective actions should be taken.

The ERS program is administered by the Radiation Control Program, Bureau of Air and Radiation, KDHE. This is done in cooperation with Wolf Creek as part of the continuing partnership between KDHE and WCNGS in protecting the public and the environment of Kansas.

Between September 1999 and March 2000 the program underwent an internal review. This review showed that some improvements in the efficiency and the quality of the science involved were needed. As a result, in July 2000 a revised program was approved and implemented by KDHE. The changes included adding random sampling points and some new sample collection and analysis techniques. While the primary purpose of the program remained the same, the focus shifted to include not only the detection of ongoing effluent releases but also to evaluate long term effects of Wolf Creek operations on the environment of Coffey County and Kansas.

Although not its primary function, the operational environmental radiation surveillance program is also essential to the State's *Nuclear Facilities Incident Response Plan*. If an accidental release of radioactive materials from WCNGS

should occur, data collected from air and radiation monitoring sites will be used to calculate doses to affected populations accurately and to assess any environmental impact.

The WCGS environmental radiation surveillance program includes monitoring of ambient external radiation levels, monitoring of concentrations of radionuclides present in ambient air, water, milk, terrestrial vegetation, aquatic vegetation, fish, sediment, and soil samples.

The Radiation Control Section completed its annual report for SFY 2000 in November of 2000. The report detailed the samples taken, methodology and results of more than 400 samples taken during 1999/2000. The report showed that there was no detectable radioactivity above regulatory levels found in the environment around WCNGS. A summary of the report can be found on the Radiation Control Program's web site at <http://www.kdhe.state.ks.us/radiation/wcsum2000/index.html> with a link to an Adobe® PDF document of the full report.

*Phil Barringer, Bureau of Air and Radiation*

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## **Solid Waste and Waste Tire Laws Amended by 2001 Legislative Session**

Several changes to the solid waste and waste tire laws went into effect on July 1, 2001 as a result of the passage of House Bills 2131 and 2134 during the 2001 Legislative Session. Both of these bills were introduced by KDHE to make necessary clarifications in the law as well as to set future direction in key program areas. Some of KDHE's initial proposals survived the legislative process, but many amendments to the bills were made as part of committee debates. The major changes to the law in each program area are provided below. Note that some of the changes to the solid waste law include additional references to waste tires.

### **HB 2134 - Solid Waste Law Amendments**

- The definition of "solid waste" was amended to confirm that solid waste includes *waste tires*.
- The list of unlawful acts was expanded to include: (1) acting as a waste tire transporter or mobile waste tire processor without a permit and (2) dividing a solid waste disposal area into two or more parts to sell or transfer a part without receiving prior KDHE approval.
- The transfer of solid waste permits may now be approved by KDHE if the new permit holder submits information to the department which allows for a background investigation and a financial assurance review.
- Local governments may request approval to operate temporary waste storage areas or transfer stations without a permit in response to natural disasters.
- Colleges, universities, schools, and state agencies are now eligible to receive grants for recycling, composting, and solid waste public education.
- To be eligible for a solid waste grant, an applicant must be current on all tonnage fee payments.

### **HB 2131 - Waste Tire Law Amendments**

- The definition of waste tire "processing" was revised to clarify that waste tires can be baled either for disposal or beneficial uses.
- The definition of "waste tire site" was revised to clarify that a accumulation of waste tires for a beneficial use does not require a permit, but the accumulation is subject to standards related to mosquito and fire control.
- Disposal of processed waste tires in municipal solid waste landfills is now allowed.
- Tire retailers must now keep records documenting their use of third parties for the transportation, processing, and disposal of their waste tires.
- The tire excise tax drops from \$.50 to \$.25 per tire.
- All waste tire grant programs are eliminated.
- The county waste tire amnesty collection program is eliminated.
- KDHE can continue to clean-up pre-law (July 1990) waste tire piles until June 30, 2003.
- KDHE can clean-up illegal post-law tire piles using waste tire funds as long as the local city or county contributes 25% of the costs of the clean-up.
- KDHE shall enter into a contract with a tire retailers association to provide compliance assistance to the regulated community related to waste tire laws and regulations.

*Bill Bider, Director, Bureau of Waste Management*

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## Results for the Biological Denitrification Pilot in Bendena, Kansas

Reports for the Biological Denitrification Pilot project conducted in Bendena, Kansas have been completed. The pilot was conducted between May and December of 1999, by EcoMat, Incorporated and Science Applications International Corporation in cooperation with the Kansas Department of Health and Environment's State Water Plan Contamination/Remediation Program.

The pilot was implemented to evaluate the potential for biotreatment of water produced by a former public water supply well located in Bendena, Kansas. Bendena's water supply has been contaminated by nitrate at concentrations historically ranging from 20 to 130 mg/l. The federal maximum contaminant level for nitrate in public drinking water is 10 mg/l. EcoMat's goal was to demonstrate the ability of their proprietary treatment process to reduce the levels of nitrate and nitrite in the ground water which could potentially restore the well as a drinking water source.

Ecomat's pilot system is characterized as an *ex situ* anoxic biofilter bionitrification (BDN) process. The process uses specific biocarriers and bacteria to treat nitrate-contaminated water and employs a patented reactor that retains biocarrier within the system, thus minimizing solids carryover. Methanol is added to the system as a carbon source for cell growth and for inducing metabolic processes that remove free oxygen and encourages the bacteria to consume nitrate. Methanol is also important to assure that the nitrate conversion results in the production of nitrogen gas rather than the intermediate (and more toxic) nitrite.

The pilot involved four separate sampling/pilot evaluation events over 7 ½ months. Ecomat experimented with various post-treatment processes for each of the four evaluation periods. The various post-treatment methods evaluated were: 1) chlorination without filtration, 2) clarification, sand filtration and UV oxidation, 3) ozone and UV oxidation followed by filtration, and 4) chlorination, clarification, filtration. The influent flow ranged between three and eight gallons per minute with nitrate concentrations ranging from greater than 70 mg/l to approximately 30 mg/l.

Since the post-treatment system implemented by EcoMat varied for each of the four events, data from the four events were statistically analyzed for comparison. Events 1 and 2 were found to be successful in meeting performance goals of significantly reducing levels of nitrate and nitrite after BDN and after post treatment. For events 1 and 2, levels of nitrate ranged between 68 to 74 mg/l in influent water and were reduced to levels between 1.7 and 4.1mg/l following treatment. Events 3 and 4 were not as successful in significantly reducing levels of nitrate and nitrite after BDN and post treatment. Influent ground water contained nitrate levels ranging between 34 to 38 mg/l in events 3 and 4 and were reduced to levels ranging between 7.7 to 8 mg/l following treatment.

A second objective for the pilot was to perform an economic analysis of the BDN system. The Bendena pilot was a small-scale system with low capacity. Therefore, the economic analysis evaluated a BDN system that would treat an influent rate of 100 gpm of nitrate contaminated water. The analysis demonstrated that a 100 gpm system can operate over a year at approximately \$0.012 per gallon of treated water. Capital expenditures (54% of total costs) and labor (14% of total costs) account for a majority of the total costs of the system. Operational costs following the initial year decrease as labor for operation and maintenance becomes the dominant cost component. Ecomat indicates that the lessons learned during this pilot will allow for adjustments to larger scale systems that may reduce operational costs to \$0.005 per gallon of treated water.

The pilot demonstrated that Ecomat's BDN system is effective at reducing high levels of nitrate to levels less than the regulatory limit of 10 mg/l. Reverse osmosis and ion exchange technology has been utilized in the past as treatment to remove nitrate from ground water, but these technologies are

*(Results...continued)*

expensive and generate concentrated brine waste streams which significantly increase the cost for long term operation and maintenance.

An advantage of the BDN system is the only waste product generated is nitrogen gas. The BDN system provides another alternative to remediate ground water contaminated by nitrate although, the use of the technology as a public water supply treatment system currently appears to be limited pending further evaluation and refinement.

*Rick Bean, Bureau of Environmental Remediation*

## **Healthy Homes Conference 2001: Expanding Our Resources**

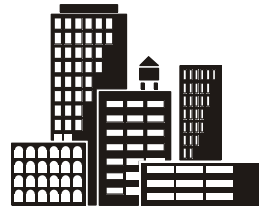
*November 1-2, Holiday Inn, Lawrence*

According to the U.S. EPA, Americans spend as much as 90 percent of their time indoors, where pollutant levels are often higher than those outside. Poor indoor air quality contributes to a number of health hazards, including asthma, one of the leading causes of hospitalizations for children in Kansas. Take advantage of this unique opportunity on November 1-2 to learn about healthy homes issues and coordinate resources with others to better address home hazards in Kansas. Included in an exceptional list of speakers is Ellen Taylor, Director of the HUD Healthy Homes Initiative based in Washington, D.C. Watch for more details on the Healthy Homes for Kansas Conference and mark your calendar for November 1-2!

*Laura Ford, Childhood Lead Poisoning Prevention Program, KDHE, 785-368-7391  
Sponsored by the KDHE Childhood Lead Poisoning Prevention Program, American Lung Association of Kansas, Healthy Homes Network, U.S. EPA, and ServiceMaster East*

## **KDHE is MOVING!**

During the months of August and September, all of KDHE's offices, with the exception of the Kansas Health and Environmental Laboratories, will be moving into one building located in downtown Topeka. The new building is located at 1000 SW Jackson (southeast of the Capitol) and Division of Environment staff will be located on the 3<sup>rd</sup> Floor (Bureaus of Air and Radiation and Waste Management), 4<sup>th</sup> Floor (Bureaus of Water, Environmental Remediation and Environmental Field Services, along with the Division of Environment Director's Office), 5<sup>th</sup> Floor (KDHE Secretary's Office and Administrative staff).



All telephone numbers, fax and e-mail addresses will remain the same. If you plan a personal visit to KDHE this summer or early fall, please call us first since the move will be bureau by bureau throughout several weeks.

## **Air and Radiation Director Retires**

Long time KDHE employee and air quality expert Jan Sides retired June 8. For the last three years, Jan was the Director of KDHE's Bureau of Air and Radiation; previously he was the Technical Services Section Chief and spent a total of 31 years in the air program. Jan started his employment with the air program in 1970 and was instrumental in establishing the first air monitoring network in the state. Prior to his appointment as Bureau Director, he supervised staff who were responsible for the air monitoring network, assuring the sampling equipment operated properly and provided valid data to the state and the US Environmental Protection Agency. Jan and his wife Nancy, who is retired from teaching, plan to spend the next few months painting a house, cleaning out garages and generally enjoying their relaxing retirement...

**Register today for the 2001 annual environmental conference, September 19-20, Ramada Inn, Hutchinson, Kansas.**

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**Risks, Rationale and Reality**

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